Dementia and Geriatric Cognitive Disorders 2015 vol.39, pages 25-31

Physical activity and better medication compliance improve mini-mental state examination scores in the elderly

Guimarães F., Amorim P., Dos Reis F., Bonoto R., De Oliveira W., Moura T., De Assis C., Palotás A., Lima L.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2014 S. Karger AG, Basel. In addition to hypertension, dyslipidemia, atherosclerosis, and diabetes, a sedentary lifestyle plays a pivotal role in cerebro- and cardiovascular disease and progressive cognitive decline, including vascular dementia and Alzheimer's disease. The present study investigated whether controlling the key risks and participating in physical activity have a beneficial impact on these disorders. Elderly volunteers were enrolled in a 3-month program that consisted of structured exercise three times per week. The daily routine, medical treatment, and vital parameters were evaluated and correlated with the subjects' neuropsychiatric status. High blood pressure was found in 40% of the participants, with no significant differences between the sexes. A higher proportion of females (55%) than males (18%) forgot to take their medication during the observation period. Significant negative correlations were found between Mini-Mental State Examination (MMSE) scores and age, lack of a caregiver, and increased pulse rate before or after exercise. These results suggest that the presence of home assistance and subsequent improvement in medication compliance, vital parameter optimization, and regular physical activity may yield better MMSE results and a lower risk for cerebro- and cardiovascular disease.

http://dx.doi.org/10.1159/000366413

Keywords

Compliance, Exercise, Hypertension, Mini-Mental State Examination, Physical activity, Risk factors, Sedentary lifestyle